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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/995,758	11/29/2001	Tomoaki Ito	H9924T-2	2938

7590 09/25/2003

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EXAMINER
POLK, SHARON A

ART UNIT	PAPER NUMBER
2836	

DATE MAILED: 09/25/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/995,758	ITO ET AL.	
	Examin r	Art Unit	
	Sharon Polk	2836	

-- The MAILING DATE of this communication app ars on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *29 November 2001* .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-20* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-20* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *29 November 2001* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☒ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Priority

1. Acknowledgment is made of applicant's claim for foreign priority based on an application filed in Japan on September 18, 1998. It is noted, however, that applicant has not filed a certified copy of the 10-264678 application as required by 35 U.S.C. 119(b). However, a certified copy of 10-264679 has been received.

Information Disclosure Statement

2. The listing of references in the specification is not a proper information disclosure statement. 37 CFR 1.98(b) requires a list of all patents, publications, or other information submitted for consideration by the Office, and MPEP § 609 A(1) states, "the list may not be incorporated into the specification but must be submitted in a separate paper." Therefore, unless the references have been cited by the examiner on form PTO-892, they have not been considered.

Specification

3. The abstract of the disclosure is objected to because of the use of legal phraseology. The form and legal phraseology often used in patent claims, such as "means," "said," and "comprises" should be avoided. Correction is required. See MPEP § 608.01(b).

Also please update the status of the continuation in part applications if applicable.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 12-14 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 12 recites the limitation "said one ends" in line 4. There is insufficient antecedent basis for this limitation in the claim.

Double Patenting

5. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970);and, *In re Thorington,* 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1, 4, 5, 10, and 16 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1, 4, 5, 7-10, and 12-14 of U.S. Patent No. 6,384,595. Although the conflicting claims are not identical, they are not patentably distinct from each other because both the application and patent

claim a similar method / apparatus for generating a pulse signal, having a magnetic element able to cause a large Barkhausen jump, a detection means, a pair of magnetic sources.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1-4, 10, 11, and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Opie, US 4,758,742 in view of the teaching of Normann, US 4,639,670.

With regard to **claims 1, 4, and 10,** Opie teaches a method of generating a pulse signal (and a pulse signal generator), comprising the steps of:

providing a pair of magnetic field sources in parallel to each other such that their opposite poles are faced to each other (*e.g.*, fig. 5, M1, M2, M3, and M4);

providing a magnetic element (22) between said magnetic field sources (fig. 4);

advancing an object (11) from one of said opposite poles to the other to thereby change a magnetic field applied to said magnetic element, which causes a large

generating a pulse signal in response to said large Barkhausen jump (*e.g.*, abstract, 6:59-7:19).

Opie does not explicitly teach, the magnetic element causes a large Barkhausen jump and further that a pulse signal is generated in response to said large jump. However, Norman teaches that Weingand wires can be used to generate pulses by a quick reversal of the direction of flux throughout the soft magnetic region by a large Barkhausen jump (2:24-26). One of ordinary skill in the art at the time of the invention was made would have been motivated to use Weingand wire, as Opie disclosed for their known properties of exhibiting large Barkhausen jump as taught by Norman.

With regard to **claims 2, and 11**, Opie teaches a method of generating a pulse signal according to claim 1, wherein said magnetic field sources consist of parallel magnets and magnetic circuit forming members (figs. 4 and 5).

With regard to **claims 3, and 15**, Opie teaches a method of generating a pulse signal wherein said magnetic field sources consist of only parallel magnets (*e.g.*, fig 5).

Allowable Subject Matter

7. Claims 6-9, and 17-20 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter: the prior art of record does not teach or fairly suggest a method of generating a pulse signal wherein the magnets have widths greater than the object, and wherein the magnetic elements extends a predetermined distance in combination with the other recited features of the claims.

Claims 12-14 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter: The prior art of record does not teach or fairly suggest an auxiliary magnet circuit forming member as claimed in combination with the additional claimed elements.

Relevant Art

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. US Patent Nos. 3,780,313, 4,309,628, 4,503,348, 4,743,780, 5,057,727, 5,181,020, and 5,530,298 disclose aspects of the claimed invention. US Patent Nos. 6,140,727, and 6,160,322 are similar to the claimed invention, having a

common inventive entity, common assignee, but does not quality as prior art, or form the basis for double patenting.

Communication with the PTO

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sharon Polk whose telephone number is 703-308-6257. The examiner can normally be reached on M-F 7-3:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brian Sircus can be reached on 703-308-3119. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0956.

sp

BRIAN SIRCUS
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2800